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# The Effects of WebQuest Writing Instruction on The Writing Performance of Saudi Male EFL Learners

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**Abstract**

This study was conducted to find out whether there were significant differences between EFL students taught using WebQuest writing instruction, and those taught using traditional instruction. The participants, 14 Saudi male students, were randomly assigned into experimental and control groups. They were given a pretest and a posttest following the instruction. Findings indicate that the writing performance of students who were taught using WebQuest (the experimental group) was better than students who were taught using traditional methods (the control group) in terms of length, vocabulary and grammar. This study suggests that using WebQuest writing instruction can result in better writing performance.


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*Keywords: EFL, WebQuests, Saudi Arabia, writing instruction*

## 1. Introduction

Networked computer technology was embraced by the public more than a decade ago, and schools continue to connect to the web. Content and task-based approaches to language learning and teaching might benefit from increased use of WebQuests. Many studies (Chang, Chen, & Hsu 2010; Dudeney, 2003; and Torees, 2007) argue there are several advantages to using WebQuests in classrooms, such as offering learners exposure to authentic material, meaningful content, and possibilities for real communication in the target language. The use of the WebQuest pedagogical tool is an effective and innovative way to use the internet in EFL teaching.

Recent advances in networked computer technology have made using computers in EFL classes more viable. Students now can interact with each other and use computers as a valuable resource for information. The purpose of the present study was to investigate the effectiveness of using the WebQuest technique in teaching writing. The primary focus of this study was to find out whether using WebQuest in writing instruction significantly improves the writing skills of Saudi EFL college students.

### *1.1 Statement of the Problem*

English language teachers are constantly seeking new and innovative ways to engage their students in inquiry activities. One novel approach is to have students seek out information about a topic using Web-based resources.

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One such resource, WebQuest, has become prevalent in English Language Teaching but little research has been conducted to attest to its benefits in writing instruction.

### *1.2 Purpose of the Study*

The study aims to explore the effect of WebQuest writing instruction on Saudi EFL students' writing performance.

### *1.3 Significance of the study*

This study highlights the benefits of innovation in teaching English in Saudi Arabia by contributing to discourse on English teaching methodology. This study is significant for teachers, students, and the field of EFL, in that it provides English language teachers and researchers with exposure to the use of internet based learning in teaching English writing. This study is also significant for the field of Computer Assisted Language Learning (CALL), in that it may inspire innovation in language teaching and provide a basis for the sound pedagogical use of the internet in teaching English.

### *1.4 Research Questions*

This research addresses the following questions:

1. Is WebQuest writing instruction effective in improving the writing performance of EFL students in terms of length, vocabulary and grammar?
2. Is there a statistically significant difference in writing achievement (at the 0.05 level) between EFL students exposed to WebQuest writing instruction and those exposed to traditional in-class writing instruction in terms of length, vocabulary and grammar?

## 2. Literature Review

### *2.1. WebQuest Overview*

Bernie Dodge (1997) defined WebQuest as "an inquiry oriented activity in which some or all of the information that the learners interact with comes from resources on the Internet, optionally supplemented with video conferencing." Bernie Dodge (1997) suggested that a WebQuest must include the following basic structure: introduction, task, process, evaluation, and conclusion. Dodge (1997) differentiated between two levels of WebQuests: 1) short term, designed to be completed in one to three class periods, and 2) long term, designed to be taken for a week, a month, or a complete semester. According to March (2003) a WebQuest is a scaffold learning structure that uses links to essential resources on the World Wide Web as an authentic task to motivate students.

### *2.2. WebQuest and Learning*

Torees (2007) suggests WebQuests have the following attributes: a clear structure that promotes effective use of time; the use of authentic material and the development of tasks connected with reality that motivates students; a collaborative and cooperative structure that encourages students to attain interdependence and responsibility; and a structure that promotes higher order thinking processes (analysis, synthesis, evaluation, etc.). Abbit and Orphus (2008), in reviewing literature about WebQuests, concluded that factors that often promote learning, such as increased motivation and the integration of technology into teaching and learning can be positively influenced by using WebQuests.

A study by Segers and Verhoeven (2009) investigated the effects on learning in a sheltered Internet environment using WebQuests in elementary school classrooms in the Netherlands. Children were given an assignment in which they had to write a travel brochure describing an extensive trip while searching for information on the Internet. One group conducted a closed-search WebQuest and the other group a free-search WebQuest. There were 229 sixth graders participating in the study. The closed-search WebQuest resulted in better learning outcomes for boys than free-search conditions. Language quality performance was higher under free-search conditions.

Another study, conducted by Ikpeze and Boyd (2007), involved six fifth-grade students (five girls and one boy) and explored how information may overload the children when working with WebQuests and the Internet in general. The researchers concluded that WebQuests appeared to help bridge the gap between content literacy and technological literacy. Children learned to deal with technology. They also were provided with opportunities for collaboration.

### *2.3. WebQuest and English Language Learning*

Torees (2007) found that WebQuests can be an opportunity to practice not only reading, writing and listening by using multimedia resources, but speaking as well. Speaking can be integrated by means of voice tools or simply by proposing a task where the outcome involves some kind of oral interaction or presentation. WebQuests provide students the opportunity to deal with authentic material in the target language and this can foster language learning.

Another study was conducted by Wagman (2005), who gave a full description on how to implement a WebQuest in a high school in a Latin course. The researcher found that the participants, 46 students, were motivated and appeared to have learning gains in the course.

Laborda (2009) concluded that WebQuests can be a very valuable tool for providing students with many interaction opportunities in realistic settings, thus making the learning experience meaningful, experiential and motivating. To complete the WebQuest, students have to read different materials and then come up with their own. It is believed that this process gives students opportunities to explore how the target language is used and this helps them to use the language in its correct way. Laborda summarized two primary benefits: an improvement in the learner's professional competence in the use of both computers and the Internet; and the improvement of their language skills in fluency, professional vocabulary and capacity to work using a foreign language.

### *2.4. WebQuest and writing performance*

Many research findings support the positive effect of Web-based instruction on student performance. Sullivan and Pratt (1996) compared students in two ESL writing environments: a networked computer-assisted classroom and a traditional classroom. The study focused on the quantitative differences in attitudes and writing performance, and the qualitative analyses of participatory patterns. Participants were intermediate ESL Spanish students. The results showed that the writing environment had no effect on attitudes toward writing with computers or writing apprehension. However, the computer assisted classroom showed a significant gain in writing.

Torees (2007) suggested that WebQuests can be very helpful in practicing writing, reading, listening as well as speaking. He stated that WebQuests are very useful in teaching writing skills such as scanning and skimming. Such studies suggest that using WebQuests in teaching writing can be effective in improving student performance. However, some studies found no effect or a negative effect of web-based instruction on student performance. Biesenbach-Lucas and Weasenforth (2001) conducted a study to explore the effects of using electronic mail and word processing on the writing skills of non-native students in an intermediate pre-academic ESL course. Their writing was examined for (1) differences in use of cohesive features, (2) length of text produced in each medium,

and (3) differences in text-initial contextualization. Results indicated no obvious differences between students' electronic mail and word-processed writing.

On the other hand, Chuo (2007) investigated the effects of a WebQuest writing instruction program on Taiwanese EFL learners' writing performance, writing apprehension, and perception of web-resource integrated language learning. Students from two junior college classes participated in the study. One class received traditional classroom writing instruction and a second class, the WebQuest writing instruction. Chuo (2007) found that students in the WebQuest class improved their writing performance significantly more than those in the traditional class. The WebQuest class also experienced a significant reduction in writing apprehension. She concluded that WebQuests have more advantages than disadvantages in supporting language learning.

## 3. Methodology

### *3.1. Participants*

After excluding absent students, this study included 14 Saudi male students in their third semester of the English language program in the College of Languages at King Saud University. There was only one group in this level with 25 students. The researcher selected this level as the nature of the study required more mature learners familiar with using computers and the internet. It is difficult to draw generalizations because of the small sample size. The students were randomly assigned into two groups, one as the control group and the other as the experimental group. The participants in this study learned English more or less entirely in an instructional setting. They were between 19 and 23 years old. Most of them had been learning English as a foreign language in Saudi schools for 6 years. None had ever been to an English-speaking country, and they had had little opportunity to use English for communicative purposes outside the classroom. The experimental group was given writing WebQuest instruction; whereas the control group was given traditional writing instruction.

To find out whether there was a significant difference in writing ability between the experimental and control groups prior to instruction, a Mann-Whitney U test (Independent Samples Test) was run using the pretest scores. The results of the pretest showed that the mean average of the two groups' grades on the pretest were similar (see Table 1). The results showed that there was no statistically significant difference at the $p<.05$ level among the two groups' results in the pretest measuring their vocabulary, grammar, and length in their writing skills.

Table 1. Mann-Whitney U test results for the Groups' Equivalence

| | Group | Mean | Std. Deviation | Asymp. Sig. | Mann-Whitney U |
|---|---|---|---|---|---|
| Length | Experimental | 100 | 38.018 | 0.565 | 20 |
| | Control | 110 | 40.033 | | |
| Vocabulary | Experimental | 9.71 | 6.499 | 0.848 | 23 |
| | Control | 8.86 | 5.429 | | |
| Grammar | Experimental | 7.86 | 5.047 | 0.606 | 20.5 |
| | Control | 6.00 | 3.464 | | |

### *3.2. Materials*

The researcher designed a writing WebQuest to be used in this study (see Appendix B). The topic of this WebQuest was about dangers that threaten our planet and how to save it. The WebQuest consists of the following sections: introduction, task, process, evaluation of task performance, and brief conclusion. In the introduction, the learners are told that they have been selected to fulfil a very important mission: to help get our planet out of trouble by completing the tasks. There is an engaging YouTube movie to motivate the learners to fulfil the task. In the task section, learners are asked to visit a group of websites to discover the dangers that threaten our planet as well as to provide solutions. They are asked to present their findings, to discuss them and finally to write down a paragraph as

a final product to complete the task. The process section describes how they have to complete the task. It provides the steps and websites to fulfil the mission. The evaluation section shows the criteria to evaluate their work.

### *3.3. Instrument*

To explore the effect of the writing WebQuest on the students' writing performance, the researcher used a pretest to measure the learners' performance in writing prior to the treatment. Later, the same test was administered as a posttest to the control and experimental groups. In both the pre- and posttests, students were required to write a short paragraph about the dangers that threaten the planet and suggest solutions to protect the planet (Appendix A).

### *3.4. Procedure*

The whole study took place in a period of five weeks during the first semester of 2011. In the first week, the learners in both groups were given a pre test to ensure that the two groups were at the same proficiency level in order: (1) to minimize any effects resulting from differential proficiency levels; (2) to measure the learners' performance in writing before the treatment; and (3) to ensure that any differences in the writing performance will be due to the experiment and not preexisting knowledge.

In the following three weeks, the experimental group was asked to conduct the writing WebQuest. In the same period, the control group was given traditional classroom lessons. In the fifth week, the two groups were given the posttest. In both the pre- and posttests, students were required to write a short paragraph about the dangers that threaten the planet and suggestions to save it.

To evaluate the writing performance of the learners, the researcher followed Jacobs, et al. (1981), Brown and Bailey (1984), Hendrickson (1984), and Wilkinson (1989) in using the Frequency-count marking. The specifications were: (1) vocabulary (spelling); (2) grammar (sentence structure, punctuation), and (3) length (short, long). More mistakes in spelling, sentence structure and punctuation means less writing proficiency, and more words. Length of the paragraph means more proficiency in writing.

## 4. Results and Discussion

### *4.1. Results*

To answer the research questions and to find out whether each group, the experimental group (WebQuest instruction) and the control group (traditional instruction), made any progress in writing, a within-group two related samples Wilcoxon Test was computed to find out whether there was a significant difference between the pretest and posttest mean scores of each group. Table 2 shows the Wilcoxon test results and mean scores results for the pretest and posttest for the control group.

Table 2 Wilcoxon Test results for pretest and posttest for the control group

| | Test | Mean | Std. Deviation | Asymp. Sig. | Z Value |
|---|---|---|---|---|---|
| Length | Pre | 110 | 40.03 | 0.398 | -.845[a] |
| | Post | 115.29 | 24.35 | | |
| Vocabulary | Pre | 8.85 | 5.42 | 0.270 | -1.103[a] |
| | Post | 6.86 | 4.84 | | |
| Grammar | Pre | 6.00 | 3.46 | 0.752 | -.316[a] |
| | Post | 5.28 | 3.19 | | |

The results showed better writing performance for the control group in the posttest for the students in the control group. Although Table 2 shows students from the control group performed better in the posttest in terms of length

(M =110) than in the pretest (M = 115.29), there was no statistically significant difference at the p<.05 level in test scores for the pretest and posttest [Z ( -.845[a]), p = 0.398].

In terms of vocabulary, the control group had fewer errors in the posttest (M=8.85) than in the pretest (M=6.86). However, there was no statistically significant difference at the p<.05 level in test scores for the pretest and posttest [z= (-1.103[a]), p = 0.270].

As seen in Table 2, even though the control group showed better performance and had fewer grammatical errors on the posttest (M = 3.19) than on the pretest (M = 3.46), there were no statistically significant differences at the p<.05 level in test scores for the pretest and posttest [Z = (-.316[a]), p =0.752].

Table 3 shows that the students in the experimental group performed better in writing on the posttest than on the pretest.

Table 3. Wilcoxon Test results for pretest and posttest for the experimental group

| | Test | Mean | Std. Deviation | Asymp. Sig. | Z Value |
|---|---|---|---|---|---|
| Length | Pre | 100 | 38.01 | 0.028 | -2.197[a] |
| | Post | 122.4 | 31.88 | | |
| Vocabulary | Pre | 9.71 | 6.49 | 0.018 | -2.371[a] |
| | Post | 5.14 | 3.33 | | |
| Grammar | Pre | 7.85 | 5.04 | 0.752 | -2.214[a] |
| | Post | 3.71 | 2.42 | | |

The students from the experimental group performed better on the posttest in terms of length (M = 122.4) than in the pretest (M = 100). There was a statistically significant difference at the p<.05 level in test scores for the pretest and posttest [Z (-2.197[a]), p =0.028].

As seen in Table 3 a statically significant difference between the pretest and posttest scores of the experimental group was found at the p<.05 level [Z= (-2.371[a] ), p =0.018] , suggesting that achievement in the control group significantly improved as a result of the WebQuest writing instruction. Students committed fewer errors in the posttest in terms of vocabulary (M =5.14) than in the pretest (M =7.85).

The experimental group showed better performance and committed fewer grammatical errors in the posttest (M =3.71) than in the pretest (M = 7.85), there was a statistically significant difference at the p<.05 level in test scores for the pretest and posttest [Z = (-2.214[a]), p =0.752].

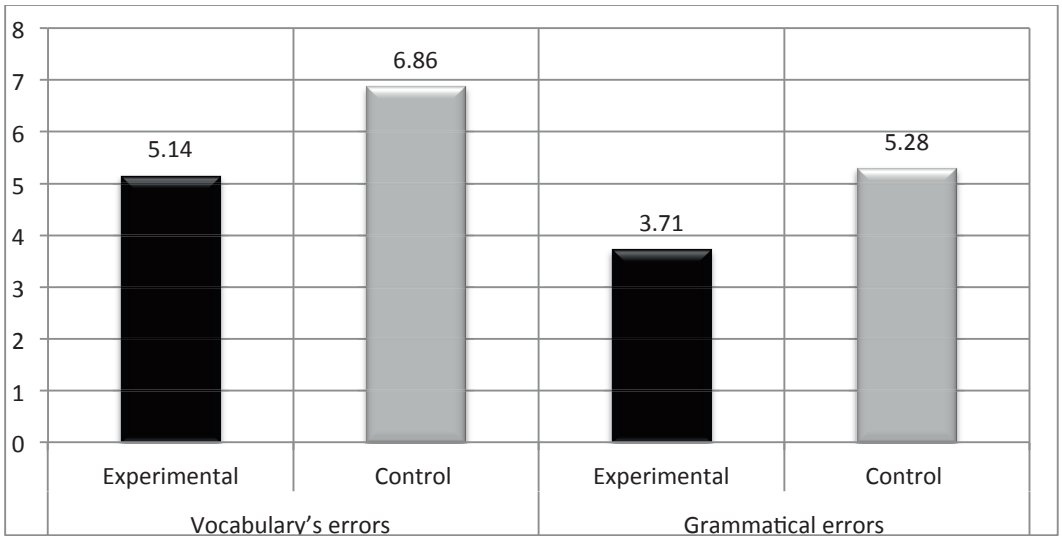


Figure 1. Mean score differences between the two groups in the posttest in terms of vocabulary and grammar

At the beginning of this study, the researcher conducted a Mann-Whitney U test (Independent Samples Test) to ensure that the two groups (control and experimental) were similar and to make sure that any difference in writing performance is because of the experiment and not preexisting knowledge. Figure 1 shows that the students in the experimental group outperformed the students in the control group in terms of vocabulary and grammar. Students in the control group committed more errors than the students in the experimental group.

In terms of length, Figure 2 shows that students in the experimental group produced longer paragraphs than students in the control group. The experimental group had a higher posttest mean score than the control group.

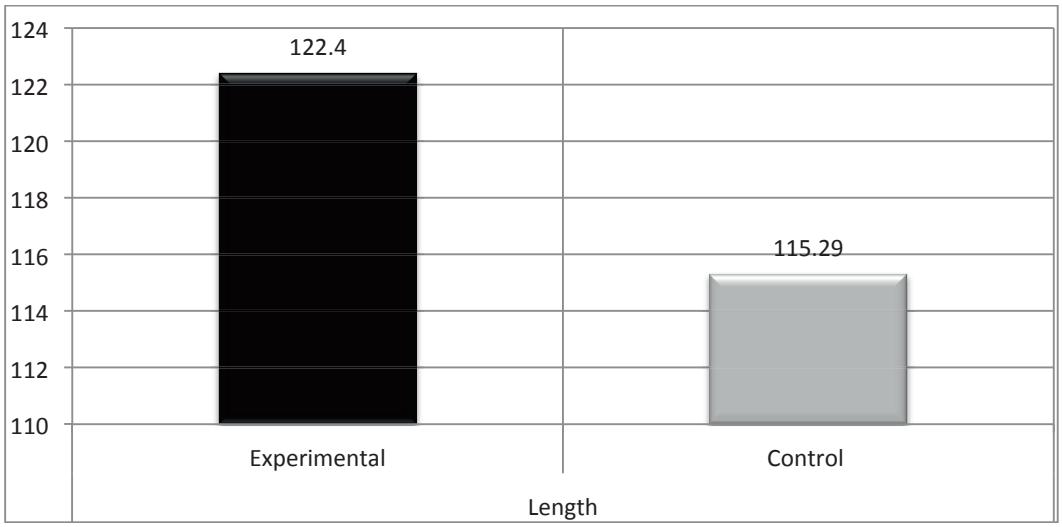


Figure 2. Mean score differences between the two groups in the posttest in terms of length

### *4.2. Discussion*

The results of this study showed that the students in the experimental group, who were taught using WebQuest writing instruction, scored significantly higher than the control group that was taught using traditional in-class writing instruction. Students in the experimental group outperformed the students in the control group in terms of length, vocabulary and grammar. There was a significant decrease in spelling, punctuation and capitalization errors.

The analysis of the pretest and posttest score means for the control group indicates that the traditional writing instruction had a positive effect on the students' writing performance; however, there was no statistically significant difference at the $p<.05$ level in test scores for the pretest and posttest in terms of length, vocabulary and grammar. The improvement in the control group can be considered a result of traditional teaching methods. Students in the control group were not given the opportunity to explore varied authentic materials, such as those available through the WebQuest. As such, these students have limited information and knowledge with which to complete assigned writing tasks in terms of vocabulary, grammar, and length.

The positive effect of WebQuest writing instruction on the writing achievement of EFL Saudi students in the experimental group found in the present study is consistent with the results found in the literature. For example, a study by Torees (2007) concluded that WebQuest is an effective tool for practicing writing and other skills since it gives the learners the opportunity to deal with authentic material in the target language. This opportunity can foster learning.

The findings of this study are in agreement with Sullivan and Pratt (1996) and Chuo (2007) who found, in comparative studies, web based learning environment classes exhibited significant gains in writing.. Chuo argued that the quality of the input that the WebQuest gives the learners is the reason behind this significant improvement in the students' writing performance. As in the present study, students were required to surf a group of web resources and read about assigned topics in order to complete the WebQuest tasks. This activity helps to enrich the content of their product.

Another reason for this positive finding in the performance of the students who were taught by WebQuest instruction is the exposure to various materials that the WebQuest includes. As stated by Torees (2007) and Laborda (2009), WebQuests provide learners with different authentic materials and help them to explore the target language. This variety of material helps students to use the language in the correct way. The findings suggest that students in the experimental group outperformed the students in the control group in terms of length, vocabulary and grammar as a result of the engaging and scaffolding nature of the WebQuest, as suggested by March (2003).

## 5. Conclusion

The present study casts some light on the effectiveness of using WebQuests in teaching foreign language learners English writing skills. This, as well as previous research (Chuo, 2007; Labaorado, 2009; Torres, 2007), suggests that when second language learners are taught writing using WebQuest writing instruction, they produce longer paragraphs and make fewer mistakes in grammar and vocabulary. In agreement with the findings of March (2003), the results of this study indicate that the use of technology to improve the writing skills of EFL students is strongly recommended as research demonstrates it is an effective tool for motivating students to learn. The literature on using the WebQuest technique to teach writing is sparse and it is this researcher's suggestion that more empirical studies examining the effectiveness of WebQuest are warranted.

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